AMENDMENTS TO THE CLAIMS

1.   (Currently amended) A method, comprising:

storing, in response to a calibration initiation, at least one operational parameter of an input channel in communication with a probe;

applying a calibration signal to said probe;

verifying that said calibration signal communicated by said probe is a valid calibration signal;

determining if ~~a~~ said calibration signal communicated by said probe exhibits a characteristic indicative of inappropriate probe operation;

adapting at least one calibration parameter in response to a determination of inappropriate probe operation; and

retrieving said at least one operational parameter of said input channel.

2.   (Currently amended) The method of claim 1, wherein said calibration initiation comprises ~~at least one of a detection of a said calibration signal and~~ an indicium of a user request to calibrate.

3.   (Original) The method of claim 1, wherein:

said step of retrieving said at least one operational parameter of said input channel is performed after a determination that said exhibited characteristic indicative of inappropriate probe operation has been reduced to a threshold level.

4.   (Original) The method of claim 3, further comprising displaying a user message indicative of a completed calibration.

5.   (Original) The method of claim 1, wherein said calibration parameter comprises a probe compensation parameter.

6.   (Original) The method of claim 1, further comprising:

detecting an attenuation factor associated with said probe.

7.   (Original) The method of claim 1, wherein said calibration parameter comprises at least one operational parameter of said input channel, said adapted at least one operational parameter tending to offset said characteristic indicative of inappropriate probe

operation.

8.   (Original) The method of claim 1, wherein said calibration signal communicated by said probe is displayed on a display device, said inappropriate probe operation being determined using said displayed calibration signal.

9.   (Currently amended) The method of claim 8, wherein a display region associated with said display device delineates a display envelope within which [a] said calibration signal provided by a correctly calibrated probe is displayed.

10.   (Currently amended) The method of claim 9, further comprising:
        modifying ~~an initial~~ said calibration signal communicated to said probe; and
        modifying said display region associated with said display device in a manner consistent with said [initial] calibration signal modifications.

11.   (Original) The method of claim 1, wherein said step of determining comprises comparing said calibration signal communicated by said probe to a reference calibration signal, said characteristic indicative of inappropriate probe operation comprising an unfavorable comparison.

12.   (Cancelled)

13.   (Currently amended) The method of claim ~~12~~ 1, wherein said ~~verification~~ verifying step comprises:
        modifying at least one of a frequency parameter, a duty cycle parameter and an amplitude parameter of ~~an initial~~ said calibration signal; ~~and~~
        comparing said calibration signal communicated by said probe to a reference calibration signal; and
        said step of determining being avoided in the case of unfavorable verification of said calibration signal
        ~~verifying that said calibration signal communicated by said probe includes characteristics indicative of the modification imparted to said initial calibration signal~~.

14.   (Original) The method of claim 1, further comprising:

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displaying at least one of an over-shoot or under-shoot value associated with said calibration signal communicated by said probe, said over-shoot and under-shoot values approaching a predefined value as a compensation of said probe is properly adjusted.

15.   (Currently amended) The method of claim 1, wherein said probe communicates with any one of a plurality of input channels, said method further comprising:

~~identifying whether calibration signal received via any of said plurality of input channels at least partially conforms to an initial calibration signal; and~~

for each input channel having associated with it at least a ~~partially conforming~~ valid calibration signal, performing the steps of storing, determining, adapting and retrieving.

16.   (Currently amended) The method of claim 1, wherein in the case of said calibration signal being communicated by each of a plurality of probes, each of said plurality of probes communicating via a respective input channel; said method is modified as follows:

said step of storing comprises storing at least one operational parameter of each of said plurality of input channels;

said applying step comprises applying said calibration signal to each of said plurality of probes;

said verifying step comprises verifying that said calibration signal communicated by each of said plurality of probes is a valid calibration signal;

said step of determining comprises determining whether said calibration signals communicated by said respective probes exhibit inappropriate temporal synchronization;

said step of adapting comprises adapting a temporal offset parameter of al least one input channel in response to a determination of inappropriate temporal synchronization; and

said step of retrieving comprises retrieving said storing said at least one operational parameter of each of said plurality of input channels.

17.   (Original) The method of claim 16, wherein said calibration initiation comprises at least one of a detection of a said calibration signal via each of said plurality of input channels and an indicium of a user request to perform a deskew operation.

18.   (Original) The method of claim 1, further comprising:

determining whether an error condition exists, said error condition comprising at

least one of a return terminal of a probe being incorrectly grounded, an amplitude of an input signal being incorrect, and signal noise above a threshold level being present.

19.   (Currently amended) A method, comprising:

storing, in response to a calibration initiation, at least one operational parameter of each of a plurality of input channels in communication with respective probes, ~~each of said input channels providing a respective output signal for subsequent use by a processor~~;

applying a calibration signal to said respective probes in communication with each of said plurality of input channels;

verifying that said calibration signals communicated by said probes are valid calibration signals with each valid calibration signal providing a respective output signal for subsequent use by a processor;

determining if said output signals provided by said input channels exhibit a characteristic indicative of inappropriate temporal synchronization;

adapting a temporal calibration parameter of at least one of said input channels in response to a determination of inappropriate temporal synchronization; and

retrieving said at least one operational parameter of each of a plurality of input channels.

20.   (Cancelled)

21.   (Cancelled)

22.   (Currently amended) A method for use in a signal analysis device, said signal analysis device comprising a plurality of input channels and a processor, each of said input channels capable of receiving an input signal from a respective probe and producing therefrom a respective output signal, said processor adapted to process data representative of at least one of said output signals, said method comprising:

storing, in response to a calibration initiation, at least one operational parameter of an input channel in communication with a probe;

applying a calibration signal to said probe;

verifying that said calibration signal communicated by said probe is a valid calibration signal;

determining if ~~a~~ said calibration signal communicated by said probe exhibits a

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characteristic indicative of inappropriate probe operation;

adapting at least one calibration parameter in response to a determination of inappropriate probe operation; and

retrieving said at least one operational parameter of said input channel.

23.   (Original) The method of claim 22, wherein said step of retrieving is performed in response to an indicium of a user request to terminate calibration.

24.   (Original) The method of claim 23, wherein said user indicium comprises at least one of a cancel command and a determination that said calibration signal communicated by said probe is not a valid calibration signal.

25.   (Currently amended) A signal analysis device, comprising:

a plurality of input channels, each of said input channels capable of receiving an input signal from a respective probe and producing therefrom a respective output signal;

a processor, adapted to process data representative of at least one of said output signals; and

a calibration signal generator, for generating a calibration signal for communication to at least one of said input channels via a respective probe;

said processor, in a calibration mode, storing operational parameters of an input channel having associated with it a probe to be calibrated, verifying said calibration signal communicated via said respective probe is a calibration signal, enabling the calibration of said probe to be calibrated, and restoring to said input channel the stored operational parameters.

26.   (Original) The signal analysis device of claim 25, wherein said signal analysis device comprises an oscilloscope.